



Missouri
Department of
Natural Resources

Associated Electric Cooperative, Inc.
Electric Generation and Emissions in 2011

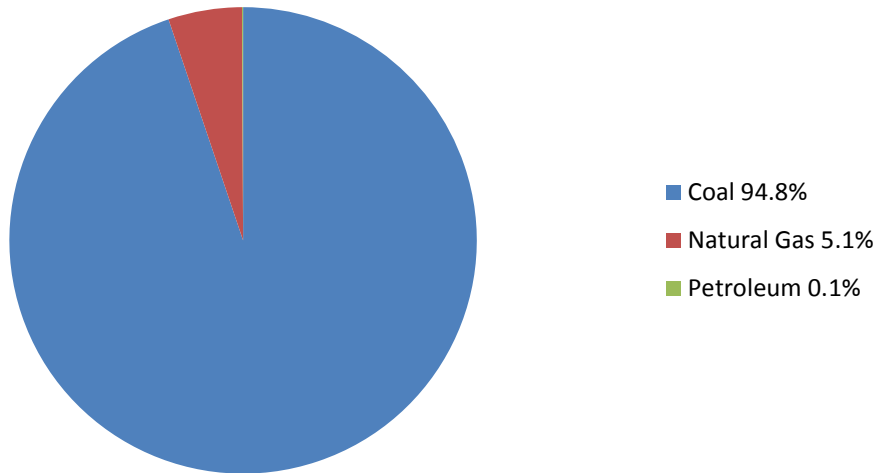
Generation Tables

	Fuel Consumption, MMBTUs	Percent of Total		Net Electric Power Generated, MWh	Percent of Total	
Non-renewable sources						
Coal	158,378,591	96.0%	96.0%	15,413,656	94.8%	94.8%
Natural Gas	6,420,190	3.9%	3.9%	828,484	5.1%	5.1%
Petroleum	123,205	0.1%	0.1%	11,743	0.1%	0.1%
Nuclear						
Other						
Non-renewable total	164,921,986	100.0%	100.0%	16,253,884	100.0%	100.0%
Renewable sources						
Biomass						
Hydroelectric						
Landfill Gas						
Solar						
Waste Fuels						
Wind						
Wood						
Renewable total						
Grand total	164,921,986		100.0%	16,253,884		100.0%

Fuel Type	Physical Units	Number of Units
Sub-bituminous Coal	Short Tons	9,148,414
Natural Gas	MCf	6,342,108
Distillate Fuel Oil	Barrels	20,954



Net Generation by Fuel Type, 2011 for Associated Electric Cooperative, Inc.





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Power Plant Nameplate information for Associated Electric Cooperative, Inc.

Plant Name	County Location	Nameplate Capacity (MW)
<i>Associated Electric Cooperative, Inc.</i>		<i>14,390.4</i>
New Madrid	New Madrid	4,800.0
Thomas Hill	Randolph	4,540.0
Unionville	Putnam	184.0
St Francis Energy Facility	Dunklin	2,456.0
Essex	Stoddard	484.8
Nodaway	Nodaway	828.8
Holden	Johnson	1,096.8



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Emissions from Electricity Generated in 2011: Associated Electric Cooperative, Inc.

	CO2 Equivalent (TONS)	Carbon Dioxide (CO2) (TONS)	Methane (CH4) (TONS)	Nitrogen Dioxide (NO2) (TONS)
<i>Associated Electric Cooperative, Inc.</i>	578,585,225	69,292,592	7,711,559	1,120,484
Essex	42,716	21,565	407	41
Holden	223,512	112,626	2,128	214
New Madrid	265,273,047	31,240,820	3,540,900	515,075
Nodaway	38,234	19,303	364	36
St Francis Energy Facility	2,669,238	1,347,582	25,416	2,542
Thomas Hill	310,331,241	36,549,052	4,142,277	602,563
Unionville	7,237	1,645	67	13

	Sulfur Dioxide (SO2) (TONS)	Annual Nitrogen Oxide (NOx) (TONS)	Summer Nitrogen Oxide (NOx) (TONS)
<i>Associated Electric Cooperative, Inc.</i>	82,637	0.0043	0.0039
Essex	0	0.0000	0.0000
Holden	0	0.0000	0.0000
New Madrid	37,337	0.0019	0.0013
Nodaway	0	0.0000	0.0000
St Francis Energy Facility	0	0.0000	0.0000
Thomas Hill	45,301	0.0023	0.0026
Unionville	0	0.0000	0.0000



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Identified Flue Gas Desulfurization (FGD) controls installed on plants operated by Associated Electric Cooperative, Inc.

Plant	Control Equipment	Sorbent Type
Thomas Hill	Spray type	Not Specified

Identified Flue Gas Particulate (FGP) controls installed on plants operated by Associated Electric Cooperative, Inc.

Plant	Control Equipment
New Madrid	Electrostatic precipitator, cold side, without flue gas conditioning
Thomas Hill	Electrostatic precipitator, cold side, without flue gas conditioning

Notes:

Generation, emissions and pollution control data include power plants owned by the utility and located in Missouri.

Emissions data calculated by Missouri Department of Natural Resources, Division of Energy, from EIA Fuel Consumption Data

Fuel Consumption and Generation Data from United States Energy Information Administration, Form 923, United States Department of Energy
<http://www.eia.gov/electricity/data/eia923>

Pollution control data (FGD and FGP equipment) from United States Energy Information Administration, Form 860, United States Department of Energy
<http://www.eia.gov/electricity/data/eia860/index.html>

Emissions factors for fuel-based generation from United States Environmental Protection Agency "Emission Factors for Greenhouse Gas Inventories", November 7, 2011,
<http://www.epa.gov/climateleadership/documents/emission-factors.pdf>